UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/967,296	09/28/2001	Jayme Edwards	01SW155	5195

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EXAMINER
NGUYEN, VAN H

ART UNIT	PAPER NUMBER
2126	4

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/967,296	EDWARDS ET AL.
	Examiner	Art Unit
	VAN H NGUYEN	2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>28 September 2001</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-32</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-32</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>9/28/01</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-32 are presented for examination.

2.   The cross reference related to the application cited in the specification must be updated

(i.e., update the relevant status, with patent numbers where appropriate, on the specification page

2). Correction is required.

Claim Objections

3.   Claims 16, 17, and 32 are objected to because of the following informalities:

(i) "at least two third-party object" (claim 1, line 3 and claim 17, line 6) should read "at

least two third-party objects"

(i) "a graphic control elements" (claim 16, lines 1-2 and claim 32, line 1-2) should read

"graphic control elements"

(ii) "discover instructions" (claim 4, line 2) should read "discovery instructions"

(iii) "at least one proprietary object protocols associated with a proprietary software

objects" (claim 17, lines 5-6) should read "at least one proprietary object protocol associated

with proprietary software objects"

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5.   Claims 1-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

    A.   The following phrases lack antecedent basis:

        (i) the group (claim 2, line 2; claim 3, line 2; claim 5, line 2; claim 18, line 2; claim 19, line 2; and claim 21, line 2)

        (ii) the events (claim 2, line 4; claim 3, lines 3-4; claim 18, line 3; and claim 19, lines 3-4)

        (iii) the event subscriptions (claim 2, line 4; claim 3, line 4; claim 18, line 4; and claim 19, line 4)

        (iv) the software objects (claim 4, line 3 and claim 20, line 3)

        (v) the parameters of the objects, the methods of the objects, and the events of the object (claim 5, lines 2-3 and claim 21, lines 1-2)

        (vi) the proprietary software objects (claim 7, lines 2-3)

        (vii) the proprietary software objects (claim 8, line 1)

    B.   The following languages are indefinite:

        (i) standard object protocol (claim 1, line 7)

(ii) a client program (claim 1, lines 9-10 and claim 17, line 8-9)

(iii) predetermined program (claim 12, lines 9-1)

Claim Rejections - 35 USC § 103

6.　　　The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7.　　　Claims 1-7, 9-13, 15-23, 25-29, and 31-32 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Auerbach et al. (U.S. 6,549,937).

8.　　　As to claim 1, Auerbach teaches the invention substantially as claimed including an

object based interface for an industrial control system (abstract) comprising:

- a server program receiving communications from a client program employing a

standard object protocol (col.4, lines 51-54; col.5, lines 5-9; and fig.2);

- a set of software objects including at least two third-party objects having differing

proprietary object protocols also differing from the standard object protocol (abstract; col.2, lines

25-32; and col.5, lines 10-12); and

- at least two object providers each communicating with the server program and one

proprietary object to translate between standard object protocol and an associated one of the

proprietary object protocols (abstract; col.2, lines 21-32; and col.5, lines 27-43).

Auerbach does not explicitly teach objects from multiple vendors may be simply utilized

by the client program.

Auerbach, however, discloses "Within the conversion platform layer, the data and

commands transformed to conform with the messaging requirements and communication

protocol of the different service providers" (abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention

to have applied Auerbach's teaching to include "objects from multiple vendors may be simply

utilized by the client program" because this would allow any application program to effectively

communicate with any service provider and can be further configured to support any functions or

features supported by any service provider.

9.   As to claim 2, Auerbach teaches the standard object protocol controls object features

selected from the group consisting of: object creation, object destruction, setting parameters of

the objects, invoking methods of the objects, subscribing to the events of objects, and canceling

the event subscriptions (col.2, lines 35-41).

10.   As to claim 3, Auerbach teaches the proprietary object protocol controls object features

selected from the group consisting of: object creation, object destruction, setting parameters of

the objects, invoking methods of the objects, subscribing to the events of objects, and canceling

the event subscriptions (col.5, lines 10-37).

11.   As to claim 4, Auerbach teaches the standard object protocol includes discovery

instructions and wherein the object providers respond to the discovery instructions by identifying

object features of the software objects with which they are associated (col.2, lines 35-53).

12.   As to claim 5, Auerbach teaches the object features identified are selected from the group

consisting of: the parameters of the objects, the methods of the objects, and the events of the

object (col.5, lines 10-37).

13.   As to claim 6, Auerbach teaches the client program communicates with the server

program over a network the object providers expose proprietary objects that are associated with a

URL (fig. 2 and associated text).

14.   As to claim 7, Auerbach teaches the object providers are software objects that provide

encapsulation of data passed to the proprietary software objects (col.6, lines 43-64).

15.   As to claim 9, Auerbach teaches an interceptor monitoring communications between the

server program and the object providers and executing a predetermined program in response to

such communications (col.6, lines 1-13).

16.   As to claim 10, Auerbach teaches the predetermined program performs at least one of the

tasks of verifying license validity and recording a fee for use of the object (col.10, lines 30-43).

17.   As to claim 11, Auerbach teaches an asserter communicating with the object providers

and the proprietary software objects executing a predetermined program in response to such

communications (col.6, lines 1-13).

18.   As to claim 12, Auerbach teaches predetermined program performs at least one of the

tasks of verifying license validity and recording a fee for use of the object (col.10, lines 30-43).

19.   As to claim 13, Auerbach teaches an Internet interface and wherein the client program communicates with the server program through the Internet interface (fig.2 and associated text).

20.   As to claim 14, Auerbach teaches the client program is a Java applet.

21.   As to claim 15, Auerbach teaches the software objects include graphic display elements (col.6, lines 1-13 and col.10, lines 5-20).

22.   As to claim 16, Auerbach teaches the software objects include a graphic control elements (col.6, lines 1-13 and col.10, lines 5-20).

23.   As to claims 17-23, 25-29, and 31-32, note the rejection of claims 1-7, 9-13, and 15-16 above. Claims 17-23, 25-29, and 31-32 are the same as claims 1-7, 9-13, and 15-16, except claims 17-23, 25-29, and 31-32 are method claims and claims 1-7, 9-13, and 15-16 are system claims.

24.   Claims 8, 14, 24, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Auerbach et al.** in view of **Williams** (U.S. 6,591,272).

25.   As to claim 8, Auerbach does not explicitly teach the proprietary software objects are selected from the group consisting of Java, Com, C++, XML, and Visual Basic objects.

Williams teaches the proprietary software objects are selected from the group consisting of Java, Com, C++, XML, and Visual Basic objects (col.7, lines 46-51).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Williams and Auerbach because Williams's teaching would have provided the capability for adding a number of Java, Com, C++, XML, and

Visual Basic features to Auerbach's system, and making Auerbach's system well suited for the

World Wide Web environment.

26.   As to claim 14, Auerbach does not explicitly teach the client program is a Java applet.

Williams teaches the client program is a Java applet (col.32, lines 60-65).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to combine the teachings of Williams and Auerbach because Williams's

teaching would have provided the capability for adding a number of Java features, such as

reusable, platform-independent components to Auerbach's system, and making Auerbach's

system well suited for the World Wide Web environment.

27.   As to claims 24 and 30, note the rejection of claims 8 and 14 above. Claims 24 and 30 are

the same as claims 8 and 14, except claims 24 and 30 are method claims and claims 8 and 14 are

system claims.

Conclusion

28.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

- Zarom (U.S. 6356529) teaches "System and method for rapid wireless application

protocol translation."

- Mullen, Jr. (U.S. 6070196) teaches "Protocol converter controller having distributed

architecture."

- Guck (U.S. 5848415) teaches "Selective multiple protocol transport and dynamic

format conversion in a multi-user network."

    - Lundin et al. (U.S. 5546584) teaches "System and method for establishing communication protocols between application programs."

    . - Koning "Algorithms for translating interaction protocols into a formal description" 1999 IEEE, pp.810-815.

29.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN H NGUYEN whose telephone number is (703) 306-5971. The examiner can normally be reached on Monday-Thursday from 8:30AM - 6:00PM. The examiner can also be reached on alternative Friday.

    If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678.

    The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

    Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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